

Pursuant to 37 CFR 1.136(a) Applicants petition the Assistant Commissioner to extend the time period to file a response to the outstanding Office Action by three (3) months, i.e., up to and including July 22, 2002. A check for \$920.00 is enclosed to cover the cost of this petition. Further, this Amendment adds one additional claim in excess of 20. A check for \$18.00 is enclosed to cover the cost of this new claim. It is believed that no further fee is required for the consideration of this Amendment. However, if an additional fee is due, the Assistant Commissioner is authorized to charge such fee, or credit any overpayment, to Deposit Account 50-0320.

The withdrawal of claims 9 to 12 and 15 to 19 as being directed to a non-elected invention is noted. Applicants respectfully traverse the Restriction Requirement for the reasons of record and again urge that the Requirement does not establish that searching all the inventions constitutes an undue burden. For example, the presence of additional active agents does not constitute an undue search since the term “comprising” would provide for additional actives whether or not they are recited and the fact that such compositions would be patentable if the compounds of claim 1 are determined to be novel and nonobvious. Hence, the search would be the same for both a composition claim comprising a compound according to claim 1 or a composition comprising a compound according to claim 1 and an additional active ingredient. Thus, reconsideration and modification of the Restriction Requirement is again requested.

This Amendment amends claim 1 and adds claim 24. The amendment to claim 24 follows the Examiner’s suggestion to replace “and” with “or” and eliminates any overlap with EP 580,370 because of tautomerism. The change from “and” to “or” is formal in nature and does not affect the original scope of the claim. Claim 24 was added following the helpful suggestion of the Examiner.

Claims 1, 6, 7 and 8 stand rejected under 35 USC § 112, second paragraph for allegedly being indefinite. For the reasons that follow, reconsideration and withdrawal of these rejections are requested.

The rejection argues that the recitation of the term “heterocycle” in the R⁴ and R⁵ substituents is indefinite. Applicants urge that one of ordinary skill in the art would understand the meaning of this term when read in light of the specification and in view of the fact that “heterocycle” is an art recognized term. Thus, reconsideration of this rejection is requested. It should be noted that contrary to the statement made in the rejection R² does claim heterocyclic rings.

The Statute requires that an applicant must particularly point out and distinctly claim the subject matter to be patented. *In re Borkowski*, 164 USPQ 642, 645 (CCPA 1970). Provided that one skilled in the art can understand from the claim language the scope of the patent protection sought, the requirements of 35 U.S.C. § 112, second paragraph are met. *See, In re Wiggins*, 179 USPQ 421, 423 (CCPA 1973); *Amgen Inc. v. Chugai Pharmaceutical Co.*, 18 USPQ2d 1015, 1030 (Fed. Cir. 1991). In evaluating the claim language, the claim must be read in light of the specification. *Orthokinetics Inc. v. Safety Travel Chairs Inc.*, 1 USPQ2d 1081, 1088 (Fed. Cir 1986).

Applicants urge that the term “heterocycle” adequately convey to the skilled artisan the scope of the patent protection sought when they are read in light of the specification. The specification defines the term “heterocycle” on pages 12 and 13 of the specification. The specification not only provides sizes for the rings, but also identifies the nature of some of the heteroatoms. Moreover, the specification provides examples of rings in the discussion. Further, Table 1 lists numerous examples which contain heterocyclic rings.

Upon reading this language, the practitioner would know which heterocyclic moieties are claimed. The practitioner would simply form a list of rings making the required substitutions. Examples of such moieties are piperidine, pyridine, thiophene, pyrrolidine etc.

That this language would convey to the practitioner the types of compounds claimed resides in the fact that the expression is conventional in the art. As evidence of this, the attention of the Examiner is respectfully directed to claim 1 of the following excerpts of U.S. Patents, which were issued by Group 1200:

5,583,132
5,574,024
5,559,232
5,510,343
5,441,960

As claim 1 of these patents recites the expression "heteroalkyl," "heteroaryl," etc., these terms must have a clear and definite meaning to the practitioner in the art.

On page two, the Office Action cites *Wiggins* to support the Examiner's position that the term "heterocyclic" is indefinite *per se*. Applicants submit that the case does not enunciate such a *per se* rule and the case was decided on facts not present in the instant application.

In *Wiggins* the issue was whether claim which recited the phrase such as "a saturated heterocyclic group of five to seven ring atom, from one to two nitrogen atoms, and up to one oxygen atom" distinctly claimed the invention. 179 USPQ at 422. The Board affirmed the Examiner that this phrase was indefinite because

the claim terminology is so broad that it does not even require that the heterocyclic group contain a carbon atom. Heterocyclic rings systems containing phosphorous, boron, silicon, and other elements in addition to nitrogen without the inclusion of carbon atoms are well-known and could not be expected to produce compounds having the properties herein claimed.

Id. at 423 (emphasis added). While Wiggins argued a narrower interpretation of the claims, the Court held that the language was indefinite because the "claims could be interpreted to include other members than those noted for appellants." *Id.* at 424.

The fact situation in this application is clearly different from the one in *Wiggins*. The present specification clearly indicates that at least one carbon atom must be present (p. 13, lines 16 and 17). Thus, it is clear that the term "heterocycle" does not contemplate rings which only contain heteroatoms.

Accordingly, in view of the foregoing, it is respectfully submitted that present claims meet the requirements of 35 U.S.C. § 112, second paragraph.

With respect to the rejection of claim 6 as being "a run-on-sentence," it should be noted that as the Statute requires that a claim cannot be more than one sentence, all claims by their nature are run-on sentences. Moreover, there is nothing in the Statute or in case law that limit the number of definitions for a variable. Further, it is urged that the list is readily understood by a practitioner of this art and the U.S. Patent Office routinely grants variables which contain a long list of substituents; hence, the presence of a long list of substituents is not against the policy of the U.S. Patent Office. Accordingly, it is urged that this objection to the claims is most unjustified and should be withdrawn.

The issue with regard to claim 7 is not understood. Claim 7 clearly states that SR^4R^5 in formula (I) is represented by a structure selected from groups A to E. Examples of compounds corresponding to compounds of formula (I) where SR^4R^5 is replaced by formula A are found on page 95 (see Examples 498 to 500). It should be noted that m in formula (I) may be 0.

Thus, in view of the foregoing, reconsideration and withdrawal of this rejection is requested.

Claim 1 stands rejected under 35 USC § 103(a) for allegedly being unpatentable over EP 530,374 to Toki, et al. ("Toki"). In view of the amendment to the claims and for the reasons that follow reconsideration and withdrawal of this rejection are requested.

The rejection states that when " R^1 and R^2 if EP 530,374 is S(O)nR, then EP 583,374 reads on claim 1 . . . because the other would have to be assumed H and default to a double bond." It is urged that the amendment to the claims overcome any potential overlap because of tautomerism.

Moreover, it is urged that Toki does not suggest the compounds presently recited in claim 1. It is urged that compound in example 102 of Toki is the closest in structure to the inventive compounds. When that compound was tested using the four biological tests disclosed in the specification, compound 102 did not exhibit any biological activity. In view of this, it is urged that there is absolutely no motivation to prepare the inventive compounds since compound 102 was inactive. In fact, the fact that the inventive compounds exhibit a very good spectrum of activity against animal pests and at the same time exhibiting good plant tolerance and favorable toxicological properties with respect to mammals and aquatic animals is highly surprising in view of this result. Accordingly, it is urged that Toki does not suggest the inventive compounds and reconsideration and withdrawal of this rejection are requested.

Claim 1 stands rejected under 35 §§ USC 102/103 for allegedly being unpatentable over Schwartau (CA 132:60427). Applicants respectfully traverse this rejection.

The inventive compounds always possess a haloalkyl group in the 4-position of the pyridine ring. The compounds disclosed in Schwartau do not possess this substituent at any

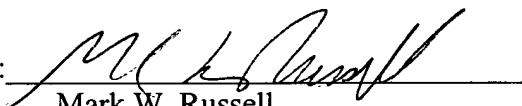
position on the pyridine ring. As Schwartau does not teach this claim element, the publication cannot anticipate the present claims.

Moreover, as Schwartau does not teach this substituent at any position on the pyridine ring, the publication does not suggest the inventive compounds because there is no motivation provided to the practitioner for its inclusion. Therefore, it is respectfully urged that the rejection does not establish a prima facie case of obviousness and reconsideration and withdrawal of this rejection is requested.

Favorable action is earnestly solicited.

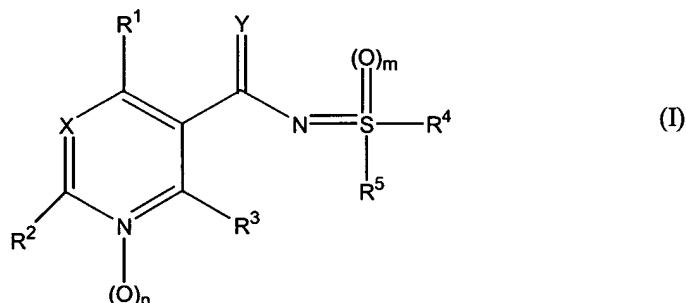
Respectfully submitted,

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Appendix Showing Amendments to the Claims

1. (Amended) An acylsulfimide of the formula (I) or a [and] salt thereof,



where the symbols and indices are as defined below:

X is CH or N;

Y is O or S;

n is 0 or 1;

m is 0 or 1;

R¹ is C₁-C₆-haloalkyl;

R², R³ are identical or different and are H, halogen or a branched or unbranched (C₁-C₆)-alkyl group, where one or two CH₂ groups may be replaced by -O- or -S- or -N(C₁-C₆)-alkyl, with the proviso that heteroatoms may not be adjacent to one another;

R⁴, R⁵ are identical or different and are R⁶, -C(LW)R⁷, -C(=NOR⁷)R⁷,
-C(=NNR⁷₂)R⁷, -C(=W)OR⁷, -C(=W)NR⁷₂, -OC(=W)R⁷, -OC(=W)OR⁷,
-NR⁷C(=W)R⁷, -N[C(=W)R⁷]₂, -NR⁷C(=W)OR⁷, -C(=W)NR⁷-NR⁷₂,
-C(=W)NR⁷-NR⁷[C(=W)R⁷], -NR⁷-C(=W)NR⁷₂, -NR⁷-NR⁷C(=W)R⁷,
-NR⁷-N[C(=W)R⁷]₂, -N[(C=W)R⁷]-NR⁷₂, -NR⁷-NR⁷[(C=W)WR⁷],
-NR⁷[(C=W)NR⁷₂], -NR⁷(C=NR⁷)R⁷, -NR⁷(C=NR⁷)NR⁷₂, -O-NR⁷₂,
-O-NR⁷(C=W)R⁷, -SO₂NR⁷₂, -NR⁷SO₂R⁷, -SO₂OR⁷, -OSO₂R⁷, -OR⁶

$[-OR^7] -NR^7_2, -SR^7_2 -SiR^7_3, -PR^7_2, -P(=W)R^7, -SO_2R, -SO_2R^7, -PW_2R^7_2,$
 $-PW_3R^7_2;$

or

R^4, R^5 together with the sulfur to which they are attached form a three- to eight-membered saturated or unsaturated ring system which is optionally mono- or polysubstituted, and which optionally contains 1 to 4 further heteroatoms, where two or more of the substituents optionally form one or more further ring systems;

W is O or S;

R^6 are identical or different and are (C_1-C_{20}) -alkyl, (C_2-C_{20}) -alkenyl, (C_2-C_{20}) -alkynyl, (C_3-C_8) -cycloalkyl, (C_4-C_8) -cycloalkenyl, (C_8-C_{10}) -cycloalkynyl, aryl or heterocyclyl, where the radicals mentioned may optionally be mono- or polysubstituted, and

R^7 is identical or different and is H or R^6 .